

WEST

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L6: Entry 35 of 37

File: DWPI

May 23, 1978

DERWENT-ACC-NO: 1978-46816A

DERWENT-WEEK: 197826

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TITLE: Aryl-acetic acid prepn. without using cyanic cpd. - by reacting aromatic aldehyde with carbon mon:oxide and water in presence of catalyst contg. Gp=VIII metal (cpd.)

Basic Abstract Text (1):

Prepn. of an arylacetic acid comprises reacting an aromatic aldehyde with CO and water in the presence of a catalyst consisting of (a) a Gp. VIII metal or a cpd. of such a metal and (b) bromine or iodine or a cpd. thereof, and, when desired, (c) copper, silver or a cpd. thereof.

Basic Abstract Text (2):

Pref. Rh (cpd.) is used as (a) and pref. I₂ or a cpd. of iodine is used as (b). The material (a) is used in an amt. of 1×10^{-4} - 5×10^{-2} g.atom (metal atom) w.r.t. 1 mol. of aromatic aldehyde and (b) is used in an amt. of 1-100 times in terms of atomic ratio w.r.t. (a). Component (c) is used in an amt. of 0.01-50 times in terms of metal atomic ratio w.r.t. (a). Reaction temp. is pref. 100-200 degrees C.

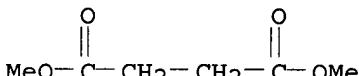
=> s 106-65-0/prep
1323 106-65-0
3056999 PREP/RL
L1 221 106-65-0/PREP
(106-65-0 (L) PREP/RL)

=> s l1 and oxidant
35300 OXIDANT
L2 2 L1 AND OXIDANT

=> s l2 and caprolactam
18705 CAPROLACTAM
L3 0 L2 AND CAPROLACTAM

=> d l2 1-2 ibib abs hitstr

L2 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2003:550002 CAPLUS
TITLE: The oxidation of primary alcohols to methyl esters and
diols to lactones using trichloroisocyanuric acid
AUTHOR(S): Hiegel, Gene A.; Gilley, Cynthia B.
CORPORATE SOURCE: Department of Chemistry and Biochemistry, California
State University, Fullerton, CA, USA
SOURCE: Synthetic Communications (2003), 33(12), 2003-2009
CODEN: SYNCV; ISSN: 0039-7911
PUBLISHER: Marcel Dekker, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Primary alcs. and diols are easily oxidized to Me esters by a soln. of
trichloroisocyanuric acid with Me alc. in dichloromethane. In addn.,
.alpha.,.omega.-diols are also readily oxidized into lactones by refluxing
with trichloroisocyanuric acid and pyridine in dichloromethane.
IT INDEXING IN PROGRESS
IT 106-65-0P, Dimethyl succinate
RL: SPN (Synthetic preparation); PREP (Preparation)
(oxidn. of primary alcs. to Me esters and diols to lactones using
trichloroisocyanuric acid oxidant)
RN 106-65-0 CAPLUS
CN Butanedioic acid, dimethyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1998:479504 CAPLUS
DOCUMENT NUMBER: 129:124061
TITLE: Percarboxylic acid solutions with storage stability
INVENTOR(S): Carr, Graham; James, Alun Pryce; Morton, Kelly Jane;
Sankey, John Phillip; Lawton, Valerie
PATENT ASSIGNEE(S): Solvay Interox Ltd., UK
SOURCE: PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9828267	A1	19980702	WO 1997-GB3461	19971216
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR,				

KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, NO, NZ,
 PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG,
 US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI,
 FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM,
 GA, GN, ML, MR, NE, SN, TD, TG

AU 9878728 A1 19980717 AU 1998-78728 19971216

AU 734381 B2 20010614

EP 946506 A1 19991006 EP 1997-949068 19971216

EP 946506 B1 20030903

R: BE, DE, ES, FR, GB, IT, NL, SE, PT, FI

BR 9713781 A 20001024 BR 1997-13781 19971216

NZ 336310 A 20010629 NZ 1997-336310 19971216

MX 9905845 A 20000430 MX 1999-5845 19990621

US 6274542 B1 20010814 US 1999-331395 19991102

GB 1996-26637 A 19961221

WO 1997-GB3461 W 19971216

PRIORITY APPLN. INFO.:

MARPAT 129:124061

AB Storage stable aq. acidic solns., often having a pH of up to 1 contg. an ester peracid and/or an acid peracid can be obtained by reacting a diester satisfying the general formula R1-O-CO-R2-CO-O-R3 (in which R1 and R3 each represents a alkyl group contg. from 1 to 4 carbon atoms which may be the same or different and R2 represents an aliph. alkylene group optionally unsatd. which may be linear or branched contg. from 2 to 6 carbon atoms) with aq. hydrogen peroxide in the presence of an acid, such as sulfuric acid and permitting the compns. to progress towards equil. concns. Also claimed is the use of above compn. as a disinfectant. By starting with a diester, perhydrolysis generates an ester peracid which is a particularly effective peracid. The process can be controlled to produce solns. contg. a high peracid content and within a wide range of ratios of ester peracid to acid peracid. Percarboxylic acids are absent of off-putting odors and applied in a wide range of uses such as oxidants, stain removers, and microbicides. Thus, 106 g DBE (a mixt. of the di-Me esters of succinic, glutaric, and adipic acids in 16, 58, and 26%, resp., Dupont) was stirred at .apprx.22.degree. with 594 g demineralized H2O and 10 g H2SO4 and 287 g 35 wt% aq. H2O2 was introduced slowly into the stirred mixt. while keeping the soln. temp. at .apprx.20.degree.. The resulting soln. contained a significant concn. of monoperacids derivs. of succinic, glutaric, and adipic acids as the predominant peracid species and residual H2O2. After adding 0.12 g p-hydroxybenzoic acid, the soln. was stored in a screw capped high d. polyethylene bottle in a dark temp. controlled enclosure to show the available oxygen in the soln. 98.6 and 97.5% after 4 and 8 wk, resp. Antibacterial activity of similarly prep'd. peracid compns. against *Staphylococcus aureus* and *Escherichia coli* was given.

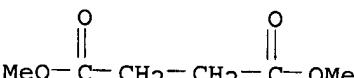
IT 106-65-0DP, Dimethyl succinate, reaction product with aq. hydrogen peroxide

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(prepn. of percarboxylic acid solns. by reaction of dicarboxylic acid diesters with hydrogen peroxide and storage stability)

RN 106-65-0 CAPLUS

CN Butanedioic acid, dimethyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT:

3

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT